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INERTWASTE

Six-Fours-les-plages : Recycling several inert flows in a deconstruction/construction project

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CARRY THE CIRCULAR ECONOMY

TO DEVELOP CIRCULAR STRATEGY

Study/ Urban metabolism / Circular Economy roadmaps / agreement / Circular Business Model /



ECO-MATERIALS & NEWS SECTORS

Using R&D and local industry to develop news materials and sectors

CIRCULAR OPERATION

Construction site
Deconstruction
Infrastructure

Support for the integration of the circular economy into construction sites (2020-2024)

Publication of 5 technical guides

- Integrating the Circular Economy into works contracts and operations
- Regulatory assessment of the management of products, equipment, materials and waste from the demolition or major renovation of buildings
- Using Secondary Resources in works contracts and operations
- kit to raise awareness of the circular economy in construction work

MOOC

A training course is now available in the form of a MOOC, which provides the basic knowledge and practical tools needed to "integrate the circular economy into public works contracts, operations and sites".

Support for 10 project owners



Stage 1: Identify willing project owners

Stage 2: Setting up a programme of actions for project owners

Stage 3: Implementation of the action programme

Stage 4: Selection of works by volunteer project owners

Stage 5: Support for selected projects

Stage 6: Analysis of support, assessment and outlook



Monitoring of 5 projects in the Initiative

From definition of needs to pre-operational studies
Monitoring the project from construction to handover
Results and indicators: reuse, waste, recycling

Technical and legal support from a company expert in NEO ECO (2023-2024)



- City of Six-Fours-les-Plages: demolition / construction / renovation of a school complex



- City of Toulon: MARNATA project (Demolition / Construction of a media library / Roads / Park)



- Euroméditerranée : MAZENOD road development project



- Métropole Nice Cote d'Azur : Tramway Ligne 4



- Aix Marseille Provence Métropole : Pertuis business park (demolition/construction of buildings/roads)

Six-Fours-les-plages : Recycling several inert flows in a deconstruction/construction project

The project includes the demolition of the Reynier Gymnasium, the demolition and reconstruction of the Reynier nursery and primary schools, and the construction of a school canteen and medical centre. These operations are part of an urban fabric made up of public facilities, small apartment blocks and detached houses, with an area of 6,150 m² dedicated to the project.



Project phasing

Upstream studies: 2021 – 2022

Cleaning - careful removal: November 2022 - May 2023

Design-build competition: November 2022 - January 2023

Deconstruction: April 2023 – Juillet 2023

Reconstruction : June 2023 – October 2023

End of works/ handover: October 2024



Circular economy approach

The project owner has chosen to implement a comprehensive circular economy strategy, which has resulted in a number of actions:

- Support from a circular economy consultant;
- Carrying out an analysis of the EMSP, resource sheets and a technical and economic analysis of recovery channels;
- The setting of quantified targets for recovery (reuse and recycling)
- Implementing careful removal and sorting on site, as well as enhanced traceability;
- Implementing a logistics system that enables the maximum number of components to be stored and reused;
- Seeking synergies between project owners, between departments and/or with other players in order to reuse or recover materials;
- The eco-design of future structures by considering the modularity of the building, shared use, lifespan, dismantlability and recyclability of the building, as well as the sourcing of alternative materials (bio-geosourced, re-used, recycled);
- Integration into the various circular economy markets.



Assessment of deconstruction

New obligations in favor of reduction, reuse, repurposing and recycling

- **Reuse:**

- Electrical equipment (control gear, lighting, etc.)
- Materials (roof tiles)
- Rigid fencing and doors
- Sports equipment (handball cage, basketball backboard, etc.)
- **Washbasins**
- Furnishings (tables, chairs, cupboards, etc.)

- **Recycling:**

- Implementation of 7-stream sorting :
Paper/cardboard. Metal. Plastic. **Glass** and joinery. Wood. **Mineral fraction**. **Gypsum**.
- **Crushing and screening of inert waste (concrete, ceramics, etc.) for on-site use in road works**

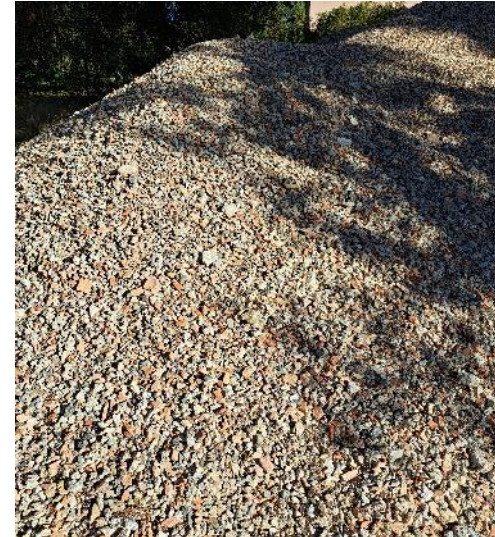


PARTICULARITY OF PROJECT : INERT RECYCLING

Using inert waste as a resource in the same site



Tiles laid for gabion filling



Different crushed fractions

PARTICULARITY OF PROJECT : INERT RECYCLING

Using inert waste as a resource in the same site



Building embankment



Seat with gabions



Schoolyard embankment

Thank you!



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